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PERKINS COIE LLP			EXAMINER	
P.O. BOX 1208			DANG, THANH HA T	
SEATTLE, WA 98111-1208				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/719,002

Applicant(s)

SPIVACK ET AL.

Examiner

Thanh-Ha Dang

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-9, 13-16, 18-22 and 24-35 is/are pending in the application.
- 4a) Of the above claim(s) 2, 10-12, 17 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-9, 13-16, 18-22 and 24-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1, 3-9, 13-16, 18-22 and 24-35 are rejected in this Office Action.
2. Applicant cancelled Claims 2, 10-12, 17 and 23.
3. This Action is made Final.

Response to Amendment

4. Receipt of Applicant's Amendment filed on 04/15/08 is acknowledged.
5. Applicant's Amendment overcomes the Claim Objections regarding Claims 3 and 13 given in the Office Action mailed 02/20/08, and therefore the objection is withdrawn.
6. Applicant's Amendment does not overcome the Claim Rejections - 35 USC § 101 regarding Claim 29, and therefore the rejection is maintained.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 29 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 29 recites "a computer-readable medium ...stored thereon instructions that when executed, create a semantic object data structure ...comprising: a set of meta-tag fields ...; a set of metadata fields ..." that is directed to a data structure per se, and is at best directed to non-

functional descriptive material. Although the data structure is stored on a computer readable medium, however it is a data structure per se. Furthermore, all the limitations claimed are directed to fields and their description, wherein the claimed data structure does not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized, and therefore, is directed to non-statutory subject matter. See MPEP 2106 (a)/(b). Claims 30-35 are dependent of Claim 29, and therefore are also rejected.

Claim Objections

8. Claims 1, 3, 19, 25 and 29 are objected to because of the following informalities:
- Claim 1 has inconsistent/not-needed punctuation “,” on lines 6 and 12 (wherein,).
 - Claims 1 and 19 respectively recite the term “definable” wherein definable is capable of being defined that is not a positive limitation but only require the ability to so perform, and therefore may or may not perform the recited function.
 - Claim 3 has inconsistent/not-needed punctuation “,” on lines 1-2.
 - Claim 19 has inconsistent/not-needed punctuation “,” or grammar on line 2 (entity, further comprises, ... more of,).
 - Claim 25 has inconsistent/not-needed punctuation “,” or grammar on line 2 (... more of,).

- Claim 29 has inconsistent/not-needed punctuation “,” on lines 8 and 17 (wherein,).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-9, 13-16, 18-19, 22, 24-29 and 31-32 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,847,974 issued to David C. Wachtel (“Wachtel”).

As to **Claim 1**, *Wachtel teaches* a method of semantically representing a target entity, the method comprising:

- identifying a set of meta-tags in the target entity to semantically represent a set of attributes associated with the target entity in a semantic object (*Figures 5-7A-B, column 3, lines 52-61*);
- wherein, the set of attributes comprises at least one attribute for specifying an access policy of the semantic object representing the target entity (*column 11, lines 9-17*);

- wherein a type of the target entity is one of a physical entity, a software entity, and an intangible entity (*Figure 5, column 10, lines 12-17*);
- receiving a metadata entry for a meta-tag of the set of meta-tags (*Figures 1 (label 27/33/29/31) and 14-18 wherein the exemplary messages read on receiving a metadata entry illustrated in figures 14-18 that show meta-tag of the set of meta-tags limitation*);
- wherein, the metadata entry semantically represents an attribute of the set of attributes (*Figures 5-7A-B, wherein metadata entry domicile or address read on attribute of the set of attributes limitation*);
- wherein one or more of the metadata entry and the meta-tag is definable with an ontology for enabling semantic access to the target entity (*column 10, lines 26-38*);
- wherein the target entity is semantically identifiable via one or more of the meta-tag and the metadata entry associated with the semantic object (*Figures 7A-B, column 11, lines 36-60*).

As to **Claim 3**, *Wachtel teaches* further comprising, a method for documenting information, the method comprising:

- creating a second semantic object that is configured to represent resource information or tacit information, the second semantic object comprising meta-tags for identifying semantic information, and rules regarding at least one of: how the second semantic object (i) interacts with, (ii) is manipulated by, and (iii) is displayed to human beings and automated processes (*Figures 4-7A-B*,

wherein person, domicile, street, corporation, or address read on second semantic object claimed limitation, column 9, lines 28-39; columns 10-11 lines 1-67);

- seeking to detect an information resource containing information that can be represented by the second semantic object (*Figures 4-7A-B, column 11, lines 1-17*); and
- if the information resource is found, linking the second semantic object to the information resource such that the second semantic object represents the information resource, wherein the second semantic object is also configured to have a link to or from any number of other semantic objects (*Figures 4-7A-B, column 11, lines 35-67*).

As to **Claim 4**, *Wachtel teaches* wherein the information resource is found, the method further comprising providing the second semantic object with meta-data about the information resource (*Figures 4-7A-B and 8, column 13, lines 9-46*).

As to **Claim 5**, *Wachtel teaches* wherein the information resource is not found, and wherein the second semantic object represents the tacit information (*Figure 5 wherein either domicile or address read on the second semantic object representing tacit information when optional opt-out rules is applied, column 13, lines 27-35*).

As to **Claim 6**, *Wachtel teaches* wherein the second semantic object is created before seeking to detect the information resource (*Figure 4 wherein block142 read on second semantic object limitation*).

As to **Claim 7**, *Wachtel teaches* wherein the information resource is detected before creating the second semantic object (*Figure 4 wherein block140 read on the information resource limitation*).

As to **Claim 8**, *Wachtel teaches* wherein the information resource is detected upon the information resource being published (*Figure 4 wherein block144 read on the information resource limitation*).

As to **Claim 9**, *Wachtel teaches* wherein any entity that publishes the information resource triggers the creation of the second semantic object (*Figure 6, column 11, lines 9-26 wherein the creation of exemplaries service1 and service2 read on the claimed limitation*).

As to **Claim 13**, *Wachtel teaches* further comprising linking the second semantic object to at least one of the other semantic object in the library (*Figures 5-6 illustrate linking of semantic object to other semantic object in the library which is represented by label200*).

As to **Claim 14**, *Wachtel teaches* wherein the physical entity comprises, one or more of, a living organism, a person, a place, an organization, a corporation, an object, a physical item, a processor, a machine, a natural entity, and an artificial entity (*Figures 5-6 wherein label200,202 and 218 read on the physical entity limitation*).

As to **Claim 15**, *Wachtel teaches* wherein the software entity comprises, one or more of, a document, an email, an address book entry, a message, an instant message, a query, a discussion thread, a posting, an XML message, a file, a directory, multimedia content, a website, a web-page, a blog, and a data record (*Figures 7A-B and 14-18 read on the software entity limitation*).

As to **Claim 16**, *Wachtel in combination with Skeen teaches* wherein the intangible entity comprises, one or more of, a relationship, an interaction, a link, a semantic relationship, a keyword relationship, a personal relationship, a connection, a transaction, an event, a type of activity, knowledge, content, an idea, and a concept (*Figures 3-7 illustrate and read on the intangible entity imitation*).

As to **Claim 18**, *Wachtel teaches* wherein the set of meta-tags are at least partially determined the type of the target entity (*Figures 14-18 wherein each sample message read on the type of the target entity limitation*).

As to **Claim 19**, *Wachtel teaches* wherein the set of attributes of the target entity, further comprises, policies regarding one or more of, interaction with the target entity, manipulation of the target entity, and presentation of the target (*column 13, lines 27-35*).

As to **Claim 22**, *Wachtel teaches* wherein the metadata is retrievable on-demand (*column 11, lines 54-57*).

As to **Claim 24**, *Wachtel teaches* wherein the metadata is modifiable (*column 12, lines 22-24*).

As to **Claim 25**, *Wachtel teaches* wherein the metadata represents one or more of, a link to second target entity having a first identified relationship matching one of a predetermined set of semantic or peer relationships and a link from a third target entity having a second identified relationship matching one of the predetermined set of semantic or peer relationships (*Figures 4-7A-B, column 11, lines 3-8*).

As to **Claim 26**, *Wachtel teaches* wherein one or more of the first identified relationship and the second identified relationship is detected from a user triggered event (*Figure 12, column 24, lines 50-53*).

As to **Claim 27**, *Wachtel teaches* wherein one or more of the first identified relationship and the second identified relationship is user-specified (*column 5 line 65 – column 6 line 6*).

As to **Claim 28**, *Wachtel in combination with Skeen teaches* wherein the metadata provides data about the structure of the semantic representation (*Figures 7A-B, column 11, lines 36-44*).

As to **Claim 29**, *Wachtel teaches* a computer-readable medium having stored thereon instructions, that when executed, create a semantic object data structure that is stored in computer memory for representation of a semantic object associated with a target entity, the semantic object data structure having a plurality of fields, the semantic object data structure comprising:

- a set of meta-tag fields of the plurality of fields determined by a type of the semantic object, the set of meta-tag fields for semantically representing a set

of attributes associated with the semantic object (*Figures 5-7A-B, column 3, lines 52-61*);

- wherein, the set of attributes comprising at comprising at least one attribute for specifying an access policy of the target represented by the corresponding semantic object (*column 11, lines 9-17*);
- a set of metadata fields of the plurality of fields each corresponding to a particular meta-tag field of the set of meta-tag fields (*Figures 4-7A-B in conjunction with Figures 14-18 that show metadata fields corresponding to a particular meta-tag field of the set of meta-tags fields limitation*);
- wherein a metadata entry provided in a particular metadata field of the set of metadata fields specifies a particular attribute of the set of attributes of the semantic object (*Figures 5-7A-B, wherein metadata entry domicile or address read on a particular attribute of the set of attributes of the semantic object (e.g., legal, person, or corporation) limitation*);
- wherein the metadata entry is ontologically definable for enabling semantic access to the target entity (*column 10, lines 26-38*);
- wherein, the semantic object data structure is accessed during execution for identifying the particular attribute of the semantic object represented by the associating metadata entry provided in the particular metadata field (*column 10, lines 26-38 wherein retrieving a street address read on accessing during execution, wherein the street address read on the particular attribute of the semantic object limitation*).

As to **Claim 31**, *Wachtel teaches* wherein, the metadata entry in the particular metadata field represents a pre-determined relationship of the semantic object to another semantic object (*Figure 3, column 5, lines 56-61; and column 6, lines 1-6*).

As to **Claim 32**, *Wachtel teaches* wherein, the set of attribute associated with the semantic object comprise, one or more of, an access permission attribute, a display attribute, and an intellectual content attribute, of the semantic object (*Figures 7A-B and 17-18, column 23, lines 28-29 wherein a format or a style attribute read on a display attribute*).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a

later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 20-21, 30 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,847,974 issued to David C. Wachtel ("Wachtel") as applied to Claims 1 and 29 above, and further in view of US Patent No. 7,384,196 issued to Skeen et al. ("Skeen").

As to **Claim 20**:

Wachtel teaches all the elements of Claim 1 a stated above.

Wachtel does not explicitly teach wherein the semantic representation is machine-readable or human-readable.

Skeen teaches wherein the semantic representation is machine-readable or human-readable (*Skeen, Figures 3-5, column 5, lines 9-14 and Figure 12, column 14, lines 53-54*). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine syntax based data transformation teaching of Skeen with method for intelligent data assimilation teaching of Wachtel to provide method and system which implement meta-data and meta-tag to define and to access concept within ontology.

As to **Claim 21**:

Wachtel teaches all the elements of Claim 1 a stated above.

Wachtel does not explicitly teach wherein the metadata is user-specifiable or machine-specifiable.

Skeen teaches wherein the metadata is user-specifiable or machine-specifiable (*Skeen, Figures 13-14, column 14, lines 58-61*) (*Skeen, column 14, lines 10-16 and 55-56 wherein machine processible and automated fashion read on machine-specifiable limitation*). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine syntax based data transformation teaching of Skeen with method for intelligent data assimilation teaching of Wachtel to provide method and system which implement user-specifiable meta-data and meta-tag.

As to **Claim 30**:

Wachtel teaches all the elements of Claim 29 a stated above.

Wachtel does not explicitly teach further comprising, an identifier field of the plurality of fields to uniquely identify the semantic object associated with the target entity.

Skeen teaches further comprising, an identifier field of the plurality of fields to uniquely identify the semantic object associated with the target entity (*Skeen, Figures 3-5, column 3, lines 64-65; and column 12, line 26-27*). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine syntax based data transformation teaching of Skeen with

method for intelligent data assimilation teaching of Wachtel to provide method and system which implement semantic object.

As to **Claim 33**:

Wachtel teaches all the elements of Claim 29 a stated above.

Wachtel does not explicitly teach wherein, a meta-tag entry of the set of meta-tag fields is definable in an ontology.

Skeen teaches wherein, a meta-tag entry of the set of meta-tag fields is definable in an ontology (*Skeen, Figures 3-4 in conjunction with Figures 11 and 13, column 11, lines 30-32*). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine syntax based data transformation teaching of Skeen with method for intelligent data assimilation teaching of Wachtel to provide method and system which implement meta-data and meta-tag to define and to access concept within ontology.

As to **Claim 34**:

Wachtel teaches all the elements of Claim 29 a stated above.

Wachtel does not explicitly teach wherein, the metadata entry of the particular metadata field is definable in the ontology.

Skeen teaches wherein, the metadata entry of the particular metadata field is definable in the ontology (*Skeen, Figures 3-4 in conjunction with Figures 13-14, column 11, lines 25-32*). Thus, it would have been obvious to a person of

ordinary skill in the art at the time of the invention to combine syntax based data transformation teaching of Skeen with method for intelligent data assimilation teaching of Wachtel to provide method and system which implement meta-data and meta-tag to define and to access concept within ontology.

As to **Claim 35**:

Wachtel teaches all the elements of Claim 29 a stated above.

Wachtel does not explicitly teach Skeen teaches wherein the metadata entry is user-specifiable and/or machine-definable.

Skeen teaches wherein the metadata entry is user-specifiable (*Skeen, Figures 13-15 and 19, column 14, lines 58-61*) and/or machine-definable (*Skeen, Figures 10-11, column 14, lines 10-16 wherein machine processible definition read on machine-definable limitation*). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine syntax based data transformation teaching of Skeen with method for intelligent data assimilation teaching of Wachtel to provide method and system which implement user-specifiable meta-data and meta-tag.

Response to Arguments

11. Applicant's arguments with respect to claims 1, 3-9 and 13-16, 18-22 and 24-35 have been considered but are moot in view of the new ground(s) of rejection.

Citation of Pertinent Prior Art

12. The prior art made of record and not relied upon in form PTO-892 if any is considered pertinent to applicant's disclosure.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **THANH-HA DANG** whose telephone number

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is (571)272-4033. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thanh-Ha Dang
Examiner, AU 2163
July 31, 2008

/don wong/

Supervisory Patent Examiner, Art Unit 2163